

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: April 24, 1997
Date Received: April 21, 1997
Project: Metro Self Monitor Grab, PO #M56926
Date Samples Extracted: April 21, 1997
Date Extracts Analyzed: April 22, 1997

**RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE
FOR CHROMIUM, COPPER, NICKEL, AND ZINC
USING METHOD 6010**

Samples Processed Using Method 3005A
Results Reported as mg/L (ppm)

<u>Sample ID</u>	<u>Chromium</u>	<u>Copper</u>	<u>Nickel</u>	<u>Zinc</u>
M56926	0.29	0.36	0.36	0.06
Method Blank	<0.05	<0.05	<0.05	<0.05

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: April 24, 1997

Date Received: April 21, 1997

Project: Metro Self Monitor Grab, PO #M56926

**QUALITY ASSURANCE RESULTS
FOR TOTAL METALS BY
INDUCTIVELY COUPLED PLASMA (ICP)
(METHOD 6010)**

Laboratory Code: 77331 (Duplicate)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Relative Percent Difference</u>	<u>Acceptance Criteria</u>
Chromium	mg/L (ppm)	0.38	0.37	3	0-20
Copper	mg/L (ppm)	0.27	0.27	0	0-20
Nickel	mg/L (ppm)	0.23	0.23	0 a	0-20
Zinc	mg/L (ppm)	<0.05	<0.05	nm	0-20

Laboratory Code: 77331 (Matrix Spike)

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>Sample Result</u>	<u>% Recovery MS</u>	<u>% Recovery MSD</u>	<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
Chromium	mg/L (ppm)	5	0.38	94	95	80-120	1
Copper	mg/L (ppm)	5	0.27	91	92	80-120	1
Nickel	mg/L (ppm)	10	0.23	97	95	80-120	2
Zinc	mg/L (ppm)	5	<0.05	98	98	80-120	0

Laboratory Code: Spike Blank

<u>Analyte:</u>	<u>Reporting Units</u>	<u>Spike Level</u>	<u>% Recovery MS</u>	<u>% Recovery MSD</u>	<u>Acceptance Criteria</u>	<u>Relative Percent Difference</u>
Chromium	mg/L (ppm)	5	103	98	80-120	5
Copper	mg/L (ppm)	5	99	95	80-120	4
Nickel	mg/L (ppm)	10	103	103	80-120	0
Zinc	mg/L (ppm)	5	104	101	80-120	3



nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

KJ AI
April 21, 1997 10:25

Send Report To: 11
 Company Alaskan Copper Works Contact GERALD Thompson
 Address 628 Hansen St
 City, State, Zip Seattle WA 98134
 Phone # (206) 382-8379 Date 4-21-97

[illegible]

SIGNATURE	PRINT NAME	COMPANY	Date	Time
Relinquished by: 	Gerald A. Thompson	ACW	4-21-87	10:20
Received by: 	Siri Nelson	F & B, Inc.	4-21-97	10:21
Relinquished by:				
Received by:				

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

April 24, 1997

INVOICE # 97ACU0424-2
DUPLICATE COPY

Accounts Payable
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

RE: Project Metro Self Monitor Grab, PO #M56926: Results of testing requested
by Gerry Thompson, Project Manager for material submitted on April 21,
1997.

1 water sample analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

\$ 65.00

Amount Due

\$ 65.00

FEDERAL TAX ID #(b) (6)

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

April 24, 1997

Gerry Thompson, Project Manager
Alaskan Copper Works
628 South Hanford St.
Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on April 21, 1997 from your Metro Self Monitor Grab, PO #M56926 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

A handwritten signature in black ink, appearing to read "Kurt Johnson", with a stylized flourish at the end.

Kurt Johnson
Chemist

keh
Enclosures
ACU0424R.DOC